

Remarks/Arguments:

Claims 1-30 are pending and rejected in the application. Claims 1, 3, 4, 5, 6, 9, 12, 15, 16, 19 and 28 have been amended. Claim 2 has been cancelled. No new matter has been added.

Applicants' representatives would like to thank the Examiner for the telephone interview conducted on May 12, 2010. During the telephone interview, Applicant's representatives explained proposed claim 1 to the Examiner. After reviewing claim 1 with respect to the art of record, the Examiner agreed that the proposed claim overcomes the current rejections and that a new search would have to be performed. Specifically, the Examiner stated that if an RCE is filed with the amended claim, that he would need to perform another search and either issue a Notice of Allowance or issue another non-final Official Action.

On page 2, the Official Action rejects claims 1-30 under 35 U.S.C. § 103(a) as being obvious over of Gwon (US 2003/0016655) in view of Warrier (US 6,707,809) and Leung (US 6, 195,705). It is respectfully submitted, however, that the claims are patentable over the art of record for at least the reasons set forth below.

Applicants' invention, as recited by claim 1, includes features which are neither disclosed nor suggested by the art of record, namely:

... measuring a first value of ... communication delay time between the mobile node and a belonging home agent ...

... acquiring information about a new home agent when the first value is equal to or greater than a first predetermined value , the acquired information about the new home agent including a second value of ... communication delay time between the mobile node and the new home agent ...

... changing from the belonging home agent to the new home agent when the second value is less than the first value ...

Claim 1 relates to a mobile node which changes from a belonging home agent to a new home agent based on communication delay. Specifically, the mobile node determines the communication delay between the mobile node and the belonging home agent as well as the communication delay between the mobile node and a new home agent. If the communication delay between the mobile node and the new home agent is less than the communication delay between the mobile node and the belonging home agent, then the mobile node changes to the new home agent. This feature is at least supported on page 21, line 23, to page 22, line 12 of Applicants' specification, and furthermore shown in Figs. 1 and 2. No new matter has been added.

Gwon's Fig.2 shows a network where a mobile node is handed off between foreign agents. For example, as mobile node 135 moves from position A to position C in the network, it changes from foreign agent R1 to foreign agent R2. Gwon's mobile node, however, does not switch home agents (the same home agent HA is always utilized).

In similar art, Fig. 2 of Warrier suggests a system having a plurality of home agents (18, 18A and 18B). Thus, if mobile node 10 is registered to network 14, then messages sent to network 14 are forwarded from home agent 18 to the care of address of mobile node 10. Warrier, however, does not suggest that the mobile node can switch networks and therefore switch home agents.

In similar art, Fig. 2A of Leung suggests that mobile node 27 may be able to switch home agents. For example, if home agent 2 fails, then mobile node 27 will move to a new home agent (e.g. home agent 3). Thus, Leung's system only switches based on failure of a home agent (not based on communication delay).

Thus, neither Gwon, Warrier, Leung or their combination disclose or suggest a mobile node which is able to switch to a new home agent when the communication delay to a new home agent is less than a communication delay to the current home agent.

Applicants' claim 1 is different than the art of record, because the mobile node switches from a belonging home agent to a new home agent when the delay to the new home agent is less than the delay to the belonging home agent ("*... measuring a first value of ... communication delay time between the mobile node and a belonging home agent ... acquiring information about a new home agent when the first value is equal to or greater than a first predetermined value , the acquired information about the new*

home agent including a second value of ... communication delay time between the mobile node and the new home agent ... changing from the belonging home agent to the new home agent when the second value is less than the first value ...").

As shown in Applicants' Fig. 1, mobile node 10 moves from position 13 in the network to position 16 in the network. Mobile node 10 then measures the communication delay between mobile node 10 and home agent 11 (the belonging home agent). When mobile node 10 determines that the communication delay is too high (exceeds a threshold), then the mobile node requests information regarding other home agents within the network (e.g. information about home agent 14). In response to the request, mobile node 10 receives information about home agent 14 which includes the communication delay between mobile node 10 and home agent 14 (the new home agent).

The mobile node then compares the communication delay between mobile node 10 and home agent 11 with the communication delay between mobile node 10 and home agent 14. If the communication delay between mobile node 10 and home agent 14 is less than the communication delay between mobile node 10 and home agent 11, then mobile node 10 switches from home agent 11 to home agent 14. This feature is at least described on page 21, line 23, to page 22, line 12, of Applicants' specification. Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Independent claim 15, 16, 19 and 28 include similar features to claim 1. Thus, these claims are also patentable over the art of record for at least the reasons set forth above.

Dependent claims 3-8, 17, 18, 20-27 and 29-30 include all the features of the claims from which they depend. Thus, these claims are also patentable over the art of record for at least the reasons set forth above.

On pages 7-9, the Official Action rejects claim 9 under a combination of Gwon, Warrior and Leung. Specifically, the Examiner cites paragraph 18 of Gwon for suggesting deficiencies in unoccupied resources in a home agent. Paragraph 18, however, only suggests deficiencies in internet addressing (it does not suggest deficiencies in unoccupied resources in a home agent). Furthermore, Warrior and Leung do not suggest switching home agents when there is a deficiency in an unoccupied

resource in a particular home agent (Leung only switches home agents when a home agent fails).

Applicants' claim 9 is different than the art of record because the home agent notifies the mobile node of a new home agent when the home agent is deficient in unoccupied resources (see pages 44-46 of Applicants' specification for support). Accordingly, for the reasons set forth above, claim 9 is patentable over the art of record.

Dependent claims 10 and 11 include all the features of claim 9 from which they depend. Thus, dependent claims 10 and 11 are also patentable over the art of record for at least the reasons set forth above with respect to claim 9.

On pages 10 and 11, the Official Action rejects claim 12 under a combination Gwon, Warriar and Leung. Specifically, the Examiner cites Fig. 1 and paragraph 42 of Gwon where the mobile node may move from network 155 to another network. Gwon, however, does not suggest that the mobile node switches home agents (Gwon only suggests that the mobile node switches foreign agents regardless of its sub-network). Furthermore, Warriar is deficient in suggesting switching home agents. Also, Leung's switching of the home agents is only based on a failure of a home agent (it is not based on the mobile node entering a predetermined sub-network).

Applicants' claim 12 is different than the art of record because as mobile node 10 enters a predetermined sub-network, the mobile node switches from a belonging home agent to a new home agent (switching of home agents is dependent upon a predetermined sub-network). Support for this feature can be at least found in Fig. 1 where mobile node 10 moves from sub-network 13 to sub-network 16. Upon moving the sub-network 16 (a predetermined sub-network), the mobile node switches from home agent 11 to home agent 14. Accordingly, for the reasons set forth above, claim 12 is patentable over the art of record.

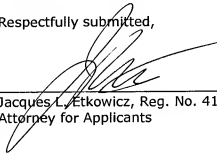
Dependent claims 13 and 14 include all the features of claim 12 from which they depend. Thus, dependent claims 13 and 14 are also patentable over the art of record for at least the reasons set forth above.

Application No.: 10/500,014
Amendment Dated: May 28, 2010
Reply to Office Action of: March 3, 2010

MAT-8566US

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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Dated: May 28, 2010

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